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New York City's Long-Term Remediation Estimates –
Red Hook Softball Fields 5, 6, 7, and 8

City Parks has estimated the time and cost associated with EPA's proposal to remove one foot of soil for the approximately 4 acres of Red Hook softball fields 5, 6, 7, and 8, place demarcation fabric over the remaining soil, and install one foot of clean fill (the "removal option"), and the City's preferred proposal to place demarcation fabric over the existing soils with a cap of one foot of clean fill above (the "cap option"). These estimates are limited to that roughly 4 acre site only and do not include the possibility of further remediation work for any of the approximately 53 acres of Red Hook Park.

Even without extending these proposals to the remainder of the park, the removal option poses a number of significant challenges in terms of contracting, design, and cost and raises serious concerns regarding public health impacts when compared to the cap option. These issues are outlined below.

Timeline

City Parks estimates that the removal option would take roughly four years (including procurement and preparation of design, procurement and implementation of construction, services, and new sodding), and require that the ballfields be closed at least for the 2017, 2018, and 2019 seasons, i.e. three years, at a minimum. In addition, the removal option would require Parks to undertake two sequential procurements, one for design, which cannot be done in-house, and one for construction. Construction would also be significantly more complicated, and require implementation of more comprehensive and burdensome health and safety measures (discussed more fully below). Assuming commencement of this process in May 2015, after EPA receives results from the March supplemental testing, an approximate timeline for the removal option is as follows:

- Design consultant procured (avg. 9 months) ~Beginning of 2016
- 100 % construction documents completed (avg. 5 months) ~Summer 2016
- Construction contractor procured (avg. 9 months) ~Spring 2017
- Construction completed (avg. 20 months) ~Winter 2019
- Sod knitting and maintenance—must be undertaken in Spring (avg. 5-6 months) Spring 2019
- Project Completed Fall 2019

In contrast, Parks estimates that the cap option would require field closure for the 2016 and part of the 2017 season, would require a procurement only for construction as the design work could be done in-house, and avoid burdensome health and safety measures (described more fully below). Assuming May 2015 commencement of the process, an approximate timeline for the cap option is as follows:

- 100% construction documents completed (in-house design) (5 months) ~Fall 2015
- Construction contractor procured (avg. 9 months) ~Summer 2016

- Construction completed (avg. 15 months) ~Fall 2017
- Sod knitting and maintenance—must be undertaken in Spring (avg. 5-6 months) Spring 2018
- Project Completed Fall 2018

Cost

City Parks estimates that the removal option will cost roughly $7 million, depending on whether the removed soil is determined to be hazardous, exclusive of waste generation fees. Other variables include testing for disposal purposes, confirmatory testing of imported material and containment means to minimize fugitive dust. If the soil is not hazardous, costs are estimated to be closer to $6 million. This is compared to an estimate of $3 million for the cap option. Note that these figures are based on recent unit costs for other remediation projects and could increase depending on changes in unit costs or discovery of unknown conditions during the project.

Health and Safety

City Parks and City Health have serious concerns regarding the removal of one foot of contaminated soil over the roughly 4 acre site. Removal would result in significant soil disturbance that could create new exposure pathways, potentially impacting workers and the public beyond the immediate vicinity of the site. In addition, the process to remove contaminated soil would result in increased truck traffic on residential and/or commercial streets beyond the immediate neighborhood. Finally, assuming a comprehensive community air monitoring plan is in place and enforced, as well as limiting truck movements to major arterials, the logistics of managing the resident/park user exposure to the more significantly contaminated material presently below the existing top foot of soil would likely result in an inefficient and longer removal effort as the contractor would be required to implement additional measures to protect the public health, including treatment of contaminated soil during excavation and transport to prevent air exposure (e.g., dust suppression of exposed soil, appropriate cover of soil on trucks or containers, decontamination areas for all equipment).

Furthermore, closure of the softball fields for any length of time is a loss of physical activity resources which can negatively impact health. Lack of access to this field can interfere with user's regular physical activity, which helps lower the risk of obesity and many health problems such as: heart disease; diabetes; arthritis; and depression. We urge you to consider an effective and safe remediation method that also shortens the length of park closure.